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Evidentiality

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1. Preliminaries

As a linguistic category, evidentiality refers to the linguistic coding of the information source a speaker has for his or her statements. In other words, evidentiality refers to the linguistic coding of what we know and how/why (see, e.g., Aikhenvald 2004: 1, for a more detailed discussion of the term, see Boye 2018). Our statements may be, e.g., based on visual evidence, or we may only have hearsay evidence for a given claim. Evidentiality can be viewed as both semantic and formal category. Semantically, evidentiality can be considered a universal category in that all languages can take account of the speaker's information source somehow, for example, lexical verbs such as 'see' and 'hear' can be used for this in case language lacks evidentiality as a grammatical category. Oher languages, such as Wutun and Tsafiki (see (4) and (5)), in turn, express evidentiality by grammaticalized morphemes, e.g., verbal affixes. In languages where evidentiality is expressed by, e.g., lexical verbs, evidentiality is usually optional, while languages like Wutun express evidentiality obligatorily. Most of the earlier research on evidentiality has focused on languages with grammaticalized evidentiality (see, e.g., Chafe & Nichols (eds.) 1986 and Aikhenvald & Dixon (eds) 2003), but recently, there has been a shift in focus, and more research has been done on languages such as German, Spanish and English (see, e.g., Diewald & Smirnova (eds.) 2010 and Diewald & Smirnova 2010). We may thus say that evidentiality is nowadays viewed more from a semantic/functional perspective and the exact nature of evidentiality expression is less relevant. This view is adopted also in this chapter, and no major distinctions are made between languages based on the nature of their evidentiality expression. This follows because the goal of this chapter is to discuss evidentiality as broadly as possible.

Evidentiality is closely related to modality, a category better known due to its frequent occurrence in more extensively studied and more widely spoken languages of Europe (see, e.g., Cornillie 2009 for a discussion of these notions). Both of these categories are related to how certain the speaker finds his/her claims to be. For example, both visual evidentials (used whenever the speaker is basing his/her claims on something s/he has seen) and indicative mood (used whenever the speaker finds a state-of-affairs probable based on the available evidence) are used when the speaker

finds the state-of-affairs s/he is referring to likely. However, the two categories differ clearly in how the certainty is motivated; in a nutshell, evidentiality is more objective and modality more subjective in nature (see Section 2 for a more detailed discussion). Pragmatics is thus more relevant to (especially epistemic) modality, while evidentiality is more semantically determined, even though, as the discussion below will show, pragmatics plays an important role for evidentiality as well.

Even though evidentiality is best defined as the speaker's information source, it is important to note that many other features contribute to what kind of evidential the speaker uses. First, the speaker is constantly monitoring what s/he expects the hearer to know (or even what the hearer is obliged to know), and chooses his/her evidentials accordingly (see Bergvist 2015). Second, in some cases, the right to know or engagement and access of information better captures the nature of evidentials (see, e.g., Evans et al 2018). For example, in Wutun lamas are seen to have access to information that is restricted for other people (see (4) below and Sandman 2016: 224). In these kinds of case, the speaker is not free to choose his/her evidentials completely freely, but other features need to be taken into account as well. Finally, as will be shown in Section 5, evidentials have other functions not directly related to the expression of information source.

In this chapter, some of the central facets of evidentiality will be discussed from a pragmatically oriented perspective (even though semantics also plays an important role). Evidentiality has recently become a popular topic of research in linguistics (even though pioneering work has been done decades ago, see, e.g., Chafe & Nichols (eds.) 1986), which has the very natural consequence that the field has become rather vast. Thus, only a part of all possible aspects can be considered in this brief overview (the interested reader is referred to Aikhenvald (ed) 2018 for detailed studies of different aspects of evidentiality). The organization of the paper is as follows. In Section 2, I will discuss the relation of evidentiality and modality. This will be followed by an illustration of the information sources in Section 3. Section 4 examines the effects of context on the use of evidentials by discussing engagement, epistemic authority and right to know, while extended/non-evidential functions of evidentials will be the focus of Section 5. Acquisition of evidentials will be discussed in Section 6, and Section 7 briefly summarizes the most relevant points of this chapter.

2. Modality and evidentiality

As noted above, evidentiality refers to the linguistic coding of the speaker's information source; how we know what we know/claim. Modality (especially epistemic modality), for its part, can be seen as the linguistic coding of the speaker's assessment of the likelihood of the occurrence of a given states-

of-affairs (see Kiefer 1998 and Palmer 1986 for more detailed discussions of modality). Both notions are intimately associated with the likelihood of a given state-of-affairs, but the probability is motivated very differently. As regards evidentiality, the nature of evidence directly determines how likely an event or state is, and the speaker's own evaluation is less important. On the other hand, the speaker's own (subjective) evaluation is always relevant to modality, even though the speaker is naturally using the information available to him/her as a basis for his/her evaluation. (Epistemic) Modality is thus best defined as the speaker's subjective evaluation of the probability of a state-of-affairs, while evidentiality can be defined as the evidence type the speaker has for his/her claim (see Cornillie 2009 for a discussion of the notions of modality and evidentiality).

In principle, all our claims are based on some kind of evidence (which may be totally absent in a given situation, as is the case, e.g., with general knowledge, see Kittilä 2019), and modality and evidentiality represent different ways of dealing/conceptualizing the evidence we have. Evidentiality is more directly related to the evidence itself and evidentiality markers directly code the type of evidence we have for our statements. We cannot label a given marker as an evidentiality marker if it does not account for the evidence type in any way. Modality, for its part, is not in any direct way associated with the evidence type, and, for example, the use of indicative mood does not say anything about the evidence type the speaker is basing his/her claim on. It only conveys the message that the speaker finds the denoted state-of-affairs likely, but it is totally silent on the evidence type. The speaker is, naturally, more likely to use indicative mood for statements based on visual evidence, but s/he is free to use indicative (or any realis) mood also for statements based on hearsay in case s/he finds the evidence reliable enough. Languages differ according to whether they stress the nature of evidence or the speaker's judgement; the first type is represented by languages with evidentiality, while the second type is illustrated by languages that code modality obligatorily (e.g., by grammatical mood). For example, if both speaker A and speaker B have heard from C that John is coming, they are both going to use hearsay evidential if they speak a language that obligatorily codes evidentiality. On the other hand, they may use different moods/modal markers (e.g. *John is coming*, or *John might be coming*) according to how reliable they find C's evidence to be.

Modality and evidentiality clearly differ from each other in their subjective vs. objective nature, but the two notions have in common that variation in the use of different markers is less dramatic for highly reliable (typically, e.g., visual) evidence. This follows rather naturally for evidentiality, because evidentiality is primarily about the nature of evidence, but a similar claim can also be made for modality. For example, the speaker is highly likely to use indicative mood, and thus present his/her claim as reliable, when s/he has visual evidence for his/her claim. In this case, the evidence is very reliable and hard to deny, and the use of other moods would thus be deemed odd. On the other hand,

there is more variation for hearsay evidence, because the speaker always has to evaluate him/herself whether s/he finds the person responsible for a given claim reliable or not. The effects of pragmatics are clearly less drastic, yet not inexistent, for evidentiality, because the nature of evidence we have for our statements varies depending on context, and some evidence types are more prone to pragmatic interpretations than others. The effects become visible the less reliable and direct the speaker's evidence becomes; less direct evidence leaves more room for speculation.

Even though most of our claims (with the notable exceptions of lies and fiction) are based on some kind of evidence that may be contextually present or not, a clearly smaller percentage of languages have grammaticalized the expression of evidentiality, but grammatical mood seems to be more frequent across languages. This is, however, probably not a mere co-incidence, but we can make a case for the more frequent occurrence of grammatical modality. From the hearer's perspective it is relevant to know whether the speaker is able to take responsibility for his/her claims, which is more directly reflected in the choice of the modal expression. Certainty is an integral part of the semantics of modals, while with evidentials certainty is only an implication. Moreover, the speaker may not be totally sure about his/her source of information, but s/he can nevertheless evaluate the degree of his/her certainty for a given claim. Source of information, purely objectively, is only one, yet highly relevant, part of this evaluation process. Direct evidence may also be contextually present, which makes its overt expression less relevant, while the speaker's evaluation is never fully retrievable from any available cues. These differences are also formally/lexically manifest. For example, Finnish, where coding of evidentiality is optional, has (in addition to grammatical mood) a variety of modal particles that can also be used for coding emphasized certainty. In contrast, there is no evidential particle for direct information, but only particles for inference, assumption, hearsay and quotation. Zero is the default form used whenever the speaker has no reason to mark the information source, and its use implies that the speaker has direct (and reliable) evidence for his/her claim. However, despite the more detailed/varied marking of modality across languages, source of information plays an important role, and many languages have made it a part of their grammar.

3. Information sources

The types of evidence we may have for our statements constitute, expectedly, an important part of studies of evidentiality. Many classifications of information sources have also been proposed, but despite the differences in how the different information sources are distinguished from each other,

the discussed evidence types are largely the same. Two slightly different classifications are found below (see also, e.g., Willet 1988):

Direct/personal (=attested, witnessed, firsthand, confirmative)

- Participatory/endophoric; common knowledge
- Visual (with subtypes)
- Non-visual (sensory)

Indirect/personal

- Inferential (based on observed results)
- Presumptive (based on plausible reasoning) (common knowledge)

Indirect/non-personal (secondhand)

- Reported (with subtypes)

(Plungian 2010: 37)

Aikhenvald (2004: 63f)

1. Visual evidence
2. Non-visual sensory evidence
3. Inference
4. Assumption
5. Hearsay
6. Quotative

The two taxonomies given above differ from each other in how the different information sources are distinguished, and there are also some differences in the number of categories. For example, Plungian considers participatory (egophoric) evidence and common knowledge (in the first sense referring to pieces of information that have become the speaker's internal information) in his classification, while these are lacking on Aikhenvald's list. The classifications also differ from each other in that Plungian makes his distinctions more explicitly based on the (in)direct and (non-)personal nature of the evidence, while Aikhenvald is rather merely a list of possible information sources.[1]

The evidence types discussed above rather well cover the ways in which humans gather information about the surrounding (non-linguistic) world. The discussed categories are also rather self-explanatory in many cases (even though their actual use may deviate from their basic semantics,

[1] Aikhenvald also discusses the differences between the information sources elsewhere in her book.

as shown in Section 5). Participatory evidence comprises cases where the speaker is making a claim based on his/her own (volitional) participation in an event, as in 'I am writing this paper' (see Floyd et al (eds.) 2018 for detailed discussion of egophoricity in different languages). Common knowledge refers to cases where the speaker is making a claim based on a piece of information that has become a part of his/her established world view without having any other evidence for his/her claim as s/he speaks. Typical examples comprise, e.g., mathematical and geographical facts and pieces of evidence that we know, e.g., of our good friends, e.g., John and Lisa have two children (see Kittilä 2019 for a more detailed discussion of general knowledge). Visual evidence refers to something we have witnessed visually. Non-visual sensory evidence covers all other types of sensory evidence. In languages with dedicated non-visual sensory markers, one marker usually codes all instances of this evidence type (as in Oksapmin, see Lawrence 1987: 55-56). Some languages (e.g., Tundra Nenets, see Jalava 2017) have a dedicated marker for auditive evidence, but no language is known to date that would have a specific marker for gustatory, tactile or olfactory evidence. Inference and assumption are two slightly difference manifestations of personal and indirect evidence (see, e.g., De Haan 2001 and Plungian 2010: 37). In both cases, the speaker is making a claim based on some evidence that is not directly related to the state-of-affairs s/he is referring to. For example, we may infer or assume that Lisa has left, when we see that her coat is gone. In this case, we directly witness the coat being gone, but we have not seen Lisa leave. Inference and assumption differ from each other in that inference is usually based on some concrete and observable evidence, while prototypical assumption is based on, e.g., the speaker's general knowledge about the world (see, e.g., Aikhenvald 2004: 63). Finally, reported/hearsay evidence covers cases where the speaker's evidence is indirect and non-personal, i.e. the speaker has no evidence of his/her own, but s/he has to rely on secondhand information. Reported evidence can further be divided into two types depending on whether the source of information is known/mentioned or not; the source is known for quotation, but it is unknown for (general) hearsay.

The different evidence types illustrated above differ from each other in how objective or subjective they are, and in whether the speaker's own evaluation plays a role in how a certain piece of evidence is interpreted. Visual evidence is very objective in nature, and it is very hard to deny something we have actually seen. On the other hand, other instances of sensory evidence are more subjective in nature. For example, if we hear a sound or smell something, we may not be sure of their causes, and we may be less willing to take responsibility for our claims. Choosing between inference and assumption always involves a subjective component, because the speaker opts for using either of these evidentials based on the reliability of the available evidence from his/her own perspective. The objective vs. subjective nature of the evidence thus correlates rather directly with the direct vs.

indirect nature of the evidence; there is clearly less variation and subjectivity for direct evidence. Finally, we may note that the nature and reliability of evidence are not constant. For example, a certain piece of information may originally be based on hearsay (i.e. indirect and thus unreliable) evidence, but once it becomes general knowledge for us it becomes highly reliable evidence. In other words, the context determines the nature of the evidence in these cases, not the semantics of the given piece information directly.

The different information sources discussed above form a clear hierarchy. Participatory, or visual evidence (depending on the exact classification) can be viewed as the most direct and most reliable evidence type, while reported/hearsay evidence constitutes the least direct and non-reliable information. The speaker can usually take (full) responsibility for his/her claims based on his/her own actions, or visual evidence, but s/he cannot take any responsibility for claims based on hearsay; they are always someone else's information, and the speaker may only choose how reliable s/he finds the evidence to be. Moreover, the hierarchy is also relevant for pragmatics in that the speaker is expected to use the most direct evidence possible for his/her claims (see Faller 2002). This means that whenever direct (personal) evidence is available the speaker will use it for his/her claims if there is no reason not to. Conversely, whenever the speaker resorts to any type of less direct evidence, the hearer usually implies that the speaker does not have more direct evidence available, which probably affects the way in which the hearer interprets the speaker's utterances (e.g., whether s/he can trust the conveyed information). In case the speaker has multiple types of evidence available, s/he usually opts for using the most direct reliable evidence. The co-operative principle and Grice's maxims are highly relevant in this regard; do not say anything you lack adequate evidence for. This follows because the speaker's goal is to convince the hearer of his/her claims and whenever this is not possible based on direct and reliable evidence, it is highlighted linguistically. It is in order to note that even though visual evidence in general constitutes the most reliable evidence type, different states-of-affairs vary according to which type of evidence is best regarded as the best possible evidence for them. For example, for any type of sound, auditive evidence is naturally more reliable than visual evidence.

Two further notes on the pragmatics of evidentials and information sources are in order. First, the division of labor between implicit (zero) and explicit coding can be said to have a clear pragmatic basis. In all the languages, where zero is used for coding any type of evidence, it always codes (at least) direct and other types of highly reliable evidence. This is the case, for example, in Magar, as shown in (1) (see also LaPolla 2003: 199 for Qiang):

Magar (Grunow-Hårsta 2007: 156)

(1) (a) *hose* *tarəɦ-a*

D.DEM arrive-PST

'He has arrived.' (I see him.)

(b) *hose* *tarah-sa*

D.DEM arrive-INFR

'He has arrived.' (I see his bag.)

(c) *hose* *tarah* *ta*

D.DEM arrive REP

'He has arrived.' (They say.)

In (1a), the speaker's claim is based on direct evidence and there is no explicit marking for this evidence type. On the other hand, inference and hearsay evidence are explicitly marked.

Zero coding of direct evidence follows quite naturally. First, direct evidence is typically readily available when we speak of states-of-affairs we are witnessing. Also the hearer can thus easily infer the type of evidence we have for our statements, and we may also share the same information. In languages such as Finnish that code evidentiality optionally by particles, zero coding is default and occurs in all the cases where the speaker finds the evidence reliable; only less reliable/direct instances of evidence are marked explicitly. Second, it is most natural to make claims based on something we have high certainty of. The degree of certainty is highest for direct evidence, and we may also say that communication runs most smoothly in case we base our claims on information that we find reliable (see the above-mentioned Grice's maxim). In principle, any type of information could be the least marked evidence type formally, but the previously mentioned pragmatic reasons speak for the unmarked nature of direct evidence. The hearer expects the speaker to use the best possible evidence available to him/her, and what is expected does not need to be highlighted.

Second, the nature of attested evidentiality systems along with the emergence of evidentials is largely pragmatically determined, i.e. communicative needs explain why certain systems exist while others do not. First, basically all languages with some form of grammaticalized evidentiality have a hearsay (or a general second-hand) evidential regardless of the size of the given evidentiality system (see Aikhenvald 2004: Chapter 2). On the other hand, there are no languages where the only grammaticalized evidential would be a direct evidential (coding any type of direct evidence). Purely logically, both of these types are equally plausible, but the former system better makes important contextually relevant distinctions. For example, it may be of the utmost importance to highlight the fact that the speaker's claim is not based on his/her own evidence. Direct evidence, for its part, may be contextually present, which makes systems that can only refer to this kind of evidence explicitly rather dysfunctional. Certain differences are communicatively relevant, which accounts for the

occurrence of hearsay evidentials. The emergence of evidentials can be explained largely along similar lines. The first evidential to emerge is usually (or even always) some kind of hearsay/second-hand evidential, i.e., languages first make the most relevant distinctions by marking the evidence type furthest from the expected type. Examples of languages whose only grammaticalized is some kind of hearsay evidential include, e.g., Estonian (Kersten Lehismets, p.c.) and Ayutla Mixe (Romero-Méndez 2008: 245). Semantically more specific evidentials (such as factual evidentials and assumptives) are usually attested only in larger systems, i.e. they develop when language already has a means of dealing with more significant differences. We may thus say that the coding of information sources is semantically motivated (the attested evidentials largely covers the ways in which humans gather information about the world), while evidentiality systems and the emergence of evidentials are rather pragmatically motivated.

4. Engagement, epistemic authority and right to know

Even though evidentiality is primarily about the speaker's information source, which is in many cases rather constant in nature, other features contribute to which of the possible evidentials the speaker chooses for his/her statement. Engagement, epistemic authority and right to know, discussed below, make an important contribution to this. These are all strongly pragmatic aspects of evidentiality whose use can be explained only by referring to pragmatics (e.g., context), semantics of evidentials makes a contribution, but does not alone suffice for explaining their use exhaustively.

First, even though evidentiality primarily concerns the speaker's evidence for his/her claim, the speaker also considers what s/he expects the listener(s) to know when choosing his/her evidentials. Evans, Bergqvist and San Roque (2018:1) label this phenomenon engagement and define it as a grammaticalised means for encoding the relative mental directedness of speaker and addressee towards an entity or state of affairs (other terms for similar phenomenon include, e.g., multiple perspective (Evans 2006) and intersubjectivity (Verhagen 2005)). For example, the speaker may use different evidentials depending on whether s/he expects the hearer to have access to the same information or not. This has been grammaticalized in languages such as Andoke and Kogi that have distinct evidential markers for shared and private knowledge, as shown in (2) and (3):

Andoke (Landaburu 2007, as cited in Evans et al 2018: 5)

(2)	a.	*páa*	*b-ʌ*	*ʌ-pó'kə̃-i*
		already	+SPKR+ADDR.ENGAG-3SG.INAN	3SG.INAN-light-AGR

‘The day is dawning (as we can both see).’ (shared knowledge)

b. *páa* *kẽ-ø* *ʌ-pó’kə̃-i*
already +SPKR-ADDR.ENGAG-3SG.INAN 3SG.INAN-light-AGR
‘The day is dawning (as I witness, but which you were not aware of).’ (non-shared knowledge)

Kogi (Bergqvist 2016: 2)

(3) a. *kwisa-té* *na-nuk-kú*
dance-IMPF SPKR.ASYM-be.LOC-1SG
‘I am/was dancing.’ {informing}

b. *kwisa-té* *ni-nuk-kú*
dance-IMPF SPKR.SYM-be.LOC-1SG
‘I am/was dancing.’ {confirming}

Andoke has two evidential markers whose use is determined by whether the speaker expects the hearer to have access to the same information or not; in (2a) speaker and hearer share the same information, while in (2b) this is not the case. Kogi also has two markers that Bergqvist (2016: 2) defines as follows: *na-* means that ‘the speaker knows *e* and expects the addressee to be unaware of *e*’, and *ni-* means that ‘the speaker knows *e* and expects the addressee to know *e* too’. In Wutun (Sandman 2016: 225), for its part, factual evidentials are used whenever the speaker expects the hearer to have access to the same information s/he has, which is the case for example for pieces of general knowledge shared by the whole community. In all of these cases, we cannot capture the whole meaning of the given elements solely by referring to the speaker’s information source, but the addressee’s evidence also needs to be considered. In fact, in (2) and (3), the information sources are different, in (2) the speaker has visual evidence for his/her statement, while in (3) s/he is using ego-evidence. This lends more support to the fact that the use of these elements is determined by whether or not the information is shared, not by its nature.

Engagement is related more generally to epistemic authority. Epistemic authority refers to the person who has the best and most direct evidence for a given piece of information, in laypersons’ terms, “who knows best”. For example, in (2b), the speaker is clearly the epistemic authority, because s/has direct access to the given information, while in (2a), epistemic authority is shared, which is manifested in the speaker’s choice of evidential. More generally, we may say that by using a direct evidential the speaker usually assumes epistemic authority (and the right to know), while reported evidentials shift the epistemic authority to an unspecified (general hearsay evidentials) or specified

(quotatives) source. The notion of epistemic authority is highly relevant to the use of ego-evidentials as well. Whenever the speaker chooses an ego-evidential for his/her claims, s/he assumes epistemic authority. This is very natural given the ego-evidentials' primary function of coding the speaker's volitional involvement in a state-of-affairs, which makes the speaker the epistemic authority by default. Ego-evidentials most naturally occur with first person referents due to their semantics, but they are also possible in cases where the speaker assumes epistemic authority over other people's actions, as in (4):

Wutun (Sandman 2016: 224)

(4) *ni* *gu* *liang-ge* *da* *jhang-de* *hanqai-la* *da* *gu*
2SG 3SG two together-REF then today-ATTR except-ABL then 3SG
be-lai-yek *caixi-la* *da* *gu* *be-lai-yek* *ni* *haipa-de*
NEG-come-EGO tonight-ABL then 3SG NEG-come-EGO 2SG fear-NMLZ
bai-yek *sho-ma*
EXIST.NEG-EGO QUOT
'As for you and him, from today he will not come (anymore); after tonight he will not come (anymore). You don't have to be afraid (the lama) said'. (WutunWT09Monks_4.)

In Wutun culture, lamas are seen as high religious authorities who have access to information unavailable to normal people (Sandman 2016: 224). Therefore, they may assume epistemic authority also in cases where they are speaking of other people's actions. The relation of ego-evidentials to epistemic authority is further manifested in the fact that non-ego evidentials may be used with first person when the speaker cannot assume full epistemic authority, as shown in (5):

Tsafiki (Barbacoan, Dickinson 2000: 412)

(5) a. *la* *kuchi=ka* *tote-yo-e*
1MASC pig=ACC kill-EGO-DECL
'I killed the pig (intentionally).'
b. *la* *kuchi=ka* *tote-i-e*
1MASC pig=ACC kill-NONEGO-DECL
'I killed the pig (unintentionally).'
c. *la* *kuchi=ka* *tote-i-nu-e*
1MASC pig=ACC kill-NONEGO-INFR/MIR-DECL
'I killed the pig (unintentionally, I infer it on the basis of indirect evidence).'

In (5a), the speaker uses an ego-evidential, because s/he is referring to an action that s/he has performed volitionally and that s/he has controlled, which makes him/her the epistemic authority. In (5b-c), the speaker's involvement in the event has been involuntary, which is manifested in the choice of evidentials. Due to the lack of volitionality, the speaker cannot assume epistemic authority, and a non-ego evidential is chosen.

Epistemic authority is very naturally related to first person, because speaker knows best what concerns him/her. Moreover, epistemic authority is also directly related to the use of evidentials with second person. Similarly to the first person (as in (5)), second person is unarguably the epistemic authority over his/her own actions. The distribution of epistemic authority in utterances concerning second person also has the consequence that the use of direct evidentials is generally viewed as pragmatically marked. This follows very naturally, because the hearer unarguably has the most direct access to the relevant information, which makes the speaker's evidence always less direct. The use of direct evidentials yields the impression that the speaker is assuming epistemic authority, which s/he usually cannot have. The use of indirect evidentials is thus more natural, because in this case the speaker is making a claim concerning the addressee, but is not claiming epistemic authority, but is, for example making an inference or assuming something. For example, the use of indirect evidentials in cases such as 'you are sick' and 'you are happy' appears more natural, because the speaker may (at best) have sensory evidence for his/her claim, while the hearer's evidence is always ego-evidence.

Because speech-act participants are, naturally, present in the speech event, both of them are epistemic authorities of their own actions. Third person is drastically different as regards claiming epistemic authority. Neither speech-act participant is by default the epistemic authority for claims regarding third person referents, but this is always contextually determined, and the participant with the most direct evidence available is usually accorded higher degree of epistemic authority. This follows also from the lack of ego-evidence for both participants; as speech-act participants both first and second person referents have ego-evidence for claims concerning themselves, but this cannot be the case for third person referents. With third person, thus any evidential is equally possible, and the choice is determined by the type of evidence available to the speaker. Epistemic authority is less relevant, but it also plays a role in that for using a direct evidential the speaker must have access to direct information. With first and second person, either indirect (first person) or direct (second person) evidentials are usually deemed less felicitous due to the distribution of epistemic authority (see Aikhenvald 2004: Chapter 7 for a detailed discussion of person and evidentials).

Epistemic authority is further closely related to the right to know. With first and second person, it is obvious that the speaker or the hearer has right to know, but for third person there is variation in

this regard; who has the best possible evidence available and who can thus claim responsibility for a given claim. Illustrative examples are found in Shipibo-Konibo and Tariana. In Shipibo-Konibo, shamans use direct evidential for their dreams, while laypersons use reportative evidential (Valenzuela 2003: 51). In Tariana, for its part, shamans use visual evidential for their utterances and other people also use visual evidential when referring to information received from shamans (Aikhenvald 2003: 138). In Quechua, shamans may use direct evidential when referring to folkolore, while other people must use other evidentials (Floyd 1999 and Martina Faller, p.c.). These differences follow, because shamans are believed to have direct access to the denoted pieces of information, which also grants them the right to use direct evidentials. Similar differences are attested also, for example, for factual evidentials and also for reportatives. Factual evidentials code information that the speaker finds highly reliable in that the denoted piece of information has become a part of the speaker's established world view. Only those who have absolute (subjective) certainty of a given piece of information may refer to it via factual evidential, or put another way, the speaker uses a factual evidential only when s/he has the (contextually determined) right to do so.

Right to know is also related to the use of reportatives, especially quotatives; who has right to quote whose information, in other words whose voice are we entitled to speak with? The right to know does not apply to general hearsay evidentials, because we are not making claims based on any specific person's information when using them. On the other hand, with quotatives we may need to consider other people's face and/or we may need to think whether we have the right to refer to a state-of-affairs via other people's information. By using hearsay evidentials we shift the responsibility to a third party whose identity is unknown. Quotatives also shift the responsibility away from the speaker, but to a specific, named source, which means that s/he needs to take the quoted source's face into account. The functional differences between hearsay and quotative evidentials also explain their use in different genres. As such, both evidentials may be used in most genres, but hearsay evidentials are less felicitous in, e.g., newspaper texts, at least in languages such as Finnish, where evidentiality is coded primarily by evidential particles. This probably follows, because in this genre truth is important and the hearer needs to be able to check the truth value of the claims made, which is not possible in the case of general hearsay evidentials. The use of quotatives is also related to polyphony and different voices, because the use of quotatives brings other people's voices into the discourse. Whose words are we bringing into the discourse and why (see Roulet 1996 for polyphony)? The use of quotatives also underline the fact that not only the speaker's evidence is important, but other people's information also play an important role.

5. Non-evidential uses of evidentials

Even though evidentials are labeled based on the evidence type they primarily code, their exact function varies, in some cases drastically, according to the context they are used in. For example, visual evidentials may also be used for other types of sensory evidence, or any kind of highly reliable (direct) information. Inferential evidentials rather typically acquire other functions, such as mirativity, and the expression of lack of volitionality (Curnow 2003). Inferential and assumptive evidentials can in principle be distinguished based on the nature of (indirect) evidence the speaker has for his/her claim, but the choice between these two evidentials typically comprises a strong subjective component as well; the speaker chooses either inferential or assumptive evidential according to how reliable s/he finds the available evidence to be (inferentials are used for more reliable evidence, e.g., Aikhenvald 2004: 63). Below some of the central extended/non-evidential uses of evidentials will be discussed. The discussion proceeds from cases where the difference to the original function is rather small to clearly non-evidential functions.

The attested (grammaticalized) evidentials, as noted above, rather well cover the basic ways in which humans gather information about the non-linguistic world. However, we may also make claims based on other types of evidence, such as general knowledge and folklore, which are rather rarely coded by distinct evidentials (see Kittilä 2019 for general knowledge). General knowledge is commonly coded by ego- or direct evidentials, while reportative and indirect evidentials are typical of folklore (see, e.g., Aikhenvald 2004: 56). This distribution of markers is rather directly accounted for by the nature of the evidence types in question. General knowledge (or facts) is highly reliable evidence, which explains the use of the most direct evidential available (ego- or direct/visual evidential depending on the language) for its coding. On the other hand, folklore is typically oral information that is passed on from generation to generation, which renders reportatives and indirect evidentials natural for its coding. Folklore may be seen as highly reliable information due to its nature, but normal people are not allowed to take responsibility for it, which explains its formal treatment.

In addition to coding some less frequent evidence types, the basic semantics of evidentials is also exploited in ways not as directly explained by referring to the type of evidence the speaker uses. A very good example of this is illustrated by avoiding/claiming responsibility. As noted above, the speaker can take responsibility for claims based on direct (especially visual) evidence, while this is not possible for hearsay evidence. Consequently, hearsay (and also other indirect) evidentials are readily available for responsibility avoidance. The speaker may thus resort to indirect evidentials whenever s/he wants to shift the responsibility to an unspecified source away from him/herself. Indirect evidentials may also be used to express doubt, which is also in line with the indirect and non-

personal nature of hearsay evidence. In these cases, the use of, e.g., a hearsay evidential is not motivated by the nature of evidence actually available, but the contextually appropriate evidential is chosen for other, pragmatic, reasons. The hearer may either interpret a given utterance literally, or s/he may evaluate the evidence contextually and draw conclusions based on that. From the speaker's perspective the exact reading is not that relevant, because s/he can nevertheless avoid responsibility by using a less direct evidential.

Finally, evidentials have functions not in any direct way related to the type of information source. First, mirativity, here understood in line with, e.g., DeLancey 1997, 2001, 2012, and Hengeveld and Olbertz 2012 as unanticipated/surprising information, is frequently coded by evidentials. Two examples are provided in (6) and (7):

Turkish (Aksu-Koç & Slobin 1982: 187)

(6) a. *Kemal* *gel-di*
Kemal come-PST
'Kemal came' (neutral for evidentiality)

b. *Kemal* *gel-miş*
Kemal come-MIR
'Kemal came' (mirative/evidential)

Jarawara (Aikhenvald 2004: 197)

(7) *Okomobi* *faha* *hi-fa-hani ama-ke*
Okomobi water Oc-drink-IMM.P.NONFIRSTH.F.EXT-DECL.F
'Okomobi (to his surprise) drank water'.

In both (6b) and (7b), the piece of information in question presents unanticipated information for the speaker, which is coded by an evidential marker available in the language. In Turkish, the mirative marker illustrated in (6b) may also express hearsay or inferential evidence, while in Jarawara a non-firsthand evidential is used for this purpose. Especially, the extension from inference to mirativity is easily accounted for, because inference always involves uncertainty and unpreparedness for the denoted state-of-affairs, which is an essential part of the semantics of mirativity (but whose use is always determined pragmatically by the context). Mirativity and evidentiality both concern the evidence the speaker has for his/her claim, but in drastically different ways. Evidentiality is directly related to the nature of the speaker's information source, while mirativity concerns the relation of the speaker's information to his/her prior knowledge. The exact nature of the evidence type is not

important. In addition to languages like Turkish and Jarawara, there are also languages where mirativity is expressed by distinct morphemes (such as Kham (Watters 2002: 288)), but these lie outside the scope of this paper, even though these languages provide us with best possible evidence for the existence of mirativity as a linguistic category.[2] They, however, do not tell us anything about extended uses of evidentials.

Another frequent non-evidential function associated with evidentials is illustrated by lack of control/volition. This comprises here, expectedly, cases where the speaker does not exercise (full) control over the denoted state-of-affairs, and/or s/he is not involved in it volitionally. Two examples are illustrated in (8) and (9):

Tariana (Aikhenvald 2004: 223-224)

(8) a. *kaɾapi* *nu-thuka-ka*
plate 1SG-break-REC.P.VIS
'I have cracked a plate intentionally.' (e.g. I was angry or hated the plate.)

b. *kaɾapi* *nu-thuka-mahka*
plate 1SG-break-REC.P.NONVIS
'I have broken a plate unintentionally.'

Northern Akhvakh (Nakh-Daghestanian, Creissels 2008: 11)

(9) a. *de-de* *istaka* *b-iq'w-āda*
1SG-ERG glass N-break-CAUS.PRF.EGO
'I broke the glass.' (lit. 'I made the glass break.')

b. *di-gune* *istaka* *b-iq'w-ari*
1SG o-ABL glass N-break-PRF.NONEGO
'I broke the glass unintentionally.' (lit. 'The glass broke from me.')

In (8-9a), the denoted event is viewed as volitionally instigated, while in (8-9b) the same event is viewed as non-volitional. In both languages, this difference is manifested in the evidential employed; in Tariana visual evidential changes to non-visual evidential, while in Northern Akhvakh, ego-evidential is replaced by a non-ego evidential. In other words, in both languages, the most direct evidential is replaced by a less direct one. In Northern Akhvakh, the change in the evidential is also

[2] Recently, the status and the essence of mirativity and mirative markers has been debated, and some scholars do not view mirativity as an independent category (see, e.g., Hill 2012), while others do (DeLancey 2012, Hengeveld & Olbertz 2012).

accompanied by a change in case marking of A. In Tariana, the use of non-visual evidential implies that the speaker has not witnessed his/her own action, which yields a non-volitional reading. In Northern Akhvakh, the use of ego-evidentials implies that the speaker cannot take full responsibility for his claim, which also holds for involuntarily instigated actions.

Lack of volition is related to mirativity in that mirativity may also be motivated by lack of volition especially with first person; something we do not plan is usually also unexpected. However, in this chapter these notions are explicitly distinguished for two reasons. First, mirativity is a broader concept, and it comprises any type of unexpectedness, not only those cases where this follows from lack of volition. Second, lack of volition is usually restricted to first person (at least when expressed by evidentials), while miratives are possible with any person. This also follows quite naturally, since any state-of-affairs can be unexpected to us (depending on context), while we can only be sure about our own volitionality. In both cases, we are dealing with the speaker's subjective evaluation, but in different ways. With (lack of) volition we are judging our own actions and their volitionality, which is naturally best known to us. As regards mirativity, subjectivity means that we evaluate whether a state-of-affairs is anticipated or not based on our own expectations. Other people's actions and their (un)expectedness from their perspective is not relevant. There is also formal evidence for the distinction; evidentials do not seem to acquire non-volitional readings with other persons (see, Curnow 2003 for a more detailed discussion).

The uses of evidentials discussed previously are clearly non-evidential in the sense that no reference to a specific information source is made in any of the cases discussed in (6)-(9). However, both mirativity and lack of volition can be regarded as rather natural extensions of the evidential's primary meaning, where pragmatics also plays a central role. For example, inference means that the speaker is making a claim based on something that is only indirectly related to the state-of-affairs s/he is referring to. In many cases, the speaker only has evidence for the result, and s/he needs to infer what has led to it, which is always open to unexpectedness in that the speaker's inference may be wrong. For example, if the speaker notices that Lisa's coat is gone, s/he may view this as reliable enough evidence for a claim such as 'Lisa has left', even though the actual reason may be something completely different (e.g., Lisa's coat was stolen). In a similar vein, mirativity expresses unexpectedness. The speaker has some evidence s/he is using as a basis for his/her claim, but what actually occurs is contrary to the speaker's evidence. The basic semantics of evidentials is relevant to the type of non-evidential functions evidentials acquire. As noted previously, inferentials are rather closely related to lack of volition and/or mirativity. On the other hand, reportative evidentials easily lend themselves to functions related to avoidance of responsibility.

6. Acquisition of evidentials

Acqusition of evidentials has not been studied in great detail, which follows at least to some extent from the fact that in general evidentiality as a notion has not been the target of extensive research yet (see Fitneva 2018: 186). Another fact that may be relevant in this regard is that evidentials are more usually attested (as a grammatical category) in lesser studied languages (with lower number of speakers) whose research is more typically focused on the description of the language, and acquisition is in the background, and may thus pose challenges for any kind of detailed study. However, some studies will be briefly discussed below.

Even though the number of studies on acquisition of evidentiality is not very high in number, the conducted studies do reveal some general trends. Aksu-Koç (1988) has shown that children acquiring Turkish learn to use the direct evidential at about eighteen months, whereas they start using the indirect evidential some months later. Later appearance of indirect evidentials has been reported also, e.g., for Korean (Choi 1991), Japanese (Matsui and Yamamoto 2013), Tibetan (de Villiers et al 1999) and Quechua (Courtney 1999). Pillow (1989) has shown that children first learn the relevance of visual evidence for statements, and only a couple of years later they realize that inference (i.e. indirect evidence) is a valid source of information as well (Sodian & Wimmer 1987).

In addition to showing, perhaps expectedly, that indirect evidentials appear later in the children's speech, their functions are also relevant as regards their acquisition. For example, Turkish learning children first start to use the indirect evidential *-mış* to mark new/unexpected information, and a little later the form appears in storytelling and for inference based on current results. Finally (at round 36 months of age), children start using the marker for coding hearsay evidence (Aksu-Koç 1988). For Korean, the children first distinguish between assimilated and unassimilated information, which is followed by hearsay evidentials (Choi 1991, 1995). It is perhaps noteworthy that inferential evidentials were not productively used by children in Choi's data.

The results of the studies briefly discussed above are rather expected, and they reflect the general tendency that what is easy is acquired/learnt before what is more complex. For example, direct evidence, especially visual evidence, is directly observable, which makes it easy to use it as evidence for one's claims. In a similar vein, children first learn words that are a part of their immediate surroundings, such as 'mummy', 'daddy' and 'cat/dog', for example. Direct evidence is also less complex in that it only involves direct observation of the event we are referring to, whereas inference entails combining direct observation with something that is not directly present. Similarly, learning to use a verb correctly requires that the child can combine a concrete referent with some kind of action. Learning to use the Turkish indirect evidential first as a marker of new/unexpected information

is in line with this; unexpected information is also directly observable and available, and does not require any kind of combination of current observation with something that is not available as we speak.

Acquisition of evidentials reflects rather directly the general tendencies of language acquisition; what is easier is acquired first. One thing that is worth mentioning in this regard is the fact that hearsay evidentials seem to be among those evidential functions that are learnt last. This is interesting in light of the fact that, as noted above, hearsay evidentials are among the most common evidentials across languages and they also seem to be among the first (grammaticalized) evidentials that emerge in languages (see, e.g., Aikhenvald 2004: Chapter 7). There is thus a clear discrepancy in how early hearsay evidentials emerge in language acquisition and language change. This difference is, however, probably rather easily explained by pragmatics and communicative needs. When a child is acquiring his/her native language(s), s/he needs to be able to get his/her message through in some way first, whereby evidentials play a less important role. On the other hand, in adult communication, features such as politeness, face and reliability are relevant, which renders it important to be able to distinguish one's own information from other people's information. This readily explain the early emergence of hearsay evidentials, which make this possible and also enable the speaker to avoid taking responsibility for his/her claims.

7. Summary

The present chapter has discussed evidentiality from different perspectives. Evidentiality was defined first and foremostly as a semantic category whose primary function is to code the source of information the speaker is using for his/her claims, but as has been shown context and other pragmatic aspects also play a role for how evidentials are actually used. Languages can be divided according to whether they express evidentiality obligatorily as a part of their grammar, or whether this is done optionally, e.g. by lexical verb or evidential particles. Traditionally, most studies on evidentiality have focused on languages with obligatorily evidentiality, but more and more research is nowadays conducted on languages whose evidentiality expression is optional.

Evidentiality is closely related to other categories, most notably modality (especially epistemic modality). Both evidentiality and modality are related to how likely the speaker finds the state-of-affairs s/he is referring to. The certainty is, however, motivated differently. Modality is primarily about the speaker's (subjective) certainty, which naturally makes certainty an integral part of any modal expression. On the other hand, degree of certainty is rather an implication for evidentiality; the

state-of-affairs is more certain if the speaker has direct evidence for it. Modality is more subjective and evidentiality more objective in nature.

Even though any marker that we wish to label as a genuine evidential marker must be able to code some kind of evidence, evidential markers serve an array of other functions as well, and in some cases the use of in principle objective evidentials comprises a subjective component. This is most visible for epistemic authority and/or right to know. First of all, people have different sources of information, and depending on the situation some speakers know certain things better than others. This is most evident for speech-act participants that always have epistemic authority for their own actions. Second, in some cultures, for example high religious authorities are seen to have more direct access to information than normal people. They may thus use direct evidentials for pieces of information for which normal people must use indirect evidentials.

Finally, in addition to their basic function (according to which evidentials are labeled), many evidentials have acquired other functions that, however, are somehow motivated by their basic semantics. First of all, not all evidence types have a dedicated evidential available for their coding, but for example, in many languages the most direct evidentials of a language are also used for coding general knowledge/facts. Second, speakers may exploit the basic semantics of evidentials, and for example, hearsay evidentials may be used for avoiding responsibility also in cases where the speaker has more direct evidence for his/her claim. Third, evidentials have also acquired functions that are not directly to the information source. The most notable of these functions are illustrated by mirativity and the expression of lack of volitionality.

Abbreviations

ACC	Accusative	EXIST	Existential
ADDR	Addressee	EXT	Extent
AGR	Agreement	F	Feminine
ABL	Ablative	IMM.P	Immediate past
ASYM	Asymmetric	IMPF	Imperfective
ATTR	Attributive	INAN	Inanimate
CAUS	Causative	INFR	Inferential
D.DEM	Distal demonstrative	LOC	Locative
DECL	Declarative	MASC	Masculine
EGO	Ego-evidential	MIR	Mirative
ERG	Ergative	N	Neuter

NEG	Negation	QUOT	Quotative
NMLZ	Nominalizer	REC.P	Recent past
NONEGO	Non-ego evidential	REP	Reported
NONFIRSTH	Non-firsthand	REF	Referential
NONVIS	Non-visual	SG	Singular
o	O-like argument	SPKR	Speaker
Oc	Marker of O-construction type	SYM	Symmetric
PRF	Perfective	VIS	Visual
PST	Past tense		

References

Aikhenvald, A. Y. 2003. Evidentiality in Tariana. In Alexandra Y. Aikhenvald & R. M. W. Dixon (eds.), *Studies in evidentiality,* 131-164. (Typological Studies in Language 54.) Amsterdam/Philadelphia: John Benjamis Publishing Company.

Aikhenvald, A. Y. and R.M.W. Dixon (eds.) 2003. *Studies in evidentiality*. Amsterdam: John Benjamins.

Aikhenvald, A. Y. 2004. *Evidentiality*. Oxford: Oxford University Press.

Aikhenvald, Alexandra Y. (ed.) 2018. *The Oxford Handbook of evidentiality*. Oxford: Oxford University Press.

Aksu-Koç, A.A. 1988. *The acquisition of aspect and modality: The case of past reference in Turkish*. Cambridge: Cambridge University Press.

Aksu-Koç, A. A. and D.I. Slobin. 1982. Tense, aspect and modality in the use of Turkish evidential. In Paul J. Hopper (ed.), *Tense-aspect: between semantics and pragmatics*, 185-200. Amsterdam: Benjamins.

Bergqvist, H. (2015). Epistemic marking and multiple perspective: an introduction. *Sprachtypologie und Universalienforschung (STUF)*,68(2): 1–19

Bergqvist, H. 2016. Complex epistemic perspective in Kogi (Arwako). *International Journal of American Linguistics* 82:1, 1–34.

Boye, K. 2018. Evidentiality: the notion and the term. In A. Y. Aikhenvald (ed.),The Oxford Handbook of evidentiality, 261-272. Oxford: Oxford University Press.

Chafe, W. L. & J. Nichols (eds.) 1986. *Evidentiality: the linguistic coding of epistemology*. Norwood, NJ: Ablex.

Choi, S. 1995. The development of epistemic sentence-ending modal forms and functions in Korean children. In J. Bybee & S. Fleischman (Eds.), *Modality in grammar and* discourse, 165–204. Amsterdam: John Benjamins.

Choi, S. 1991. Early acquisition of epistemic meaning in Korean: A study of sentence-ending suffixes in the spontaneous speech of three children. *First language* 11: 93-119.

Choi, S. 1995. The development of epistemic sentence-ending modal forms and functions in Korean children. In J. Bybee & S. Fleischman (Eds.), *Modality in grammar and* discourse, 165–204. Amsterdam: John Benjamins.

Cornillie, B. 2009. Evidentiality and epistemic modality: on the close relationship between two different categories. *Functions of Language* 16(1), 44–62.

Courtney, E. H. 1999. Child acquisition of the Quechua suffix. Santa Barbara papers in linguistics. Proceedings from the second workshop in American indigenous languages. UCSB, 30-41.

Creissels, D. 2008. Remarks on so-called "Conjunct/Disjunct" Systems. In *Proceedings of Syntax of the World's Languages III.* Berlin, 25-28 September 2008.

Curnow, T. J. 2003. Nonvolitional ity expressed through evidentials. *Studies in Language* 27(1), 39–59.

DeLancey, S. 1997. Mirativity: The grammatical marking of unexpected information. *Linguistic Typology* 1: 33–52.

DeLancey, S. 2001. The mirative and evidentiality. *Journal of Pragmatics* 33: 369–82.

DeLancey, S. 2012. Still mirative after all these years. *Linguistic Typology* 16(3): 529-564.

Dickinson, C. 2000. Mirativity in Tsafiki. *Studies in Language* 24 (2): 379-421.

Diewald, G. and E. Smirnova. 2010. *Evidentiality in German.* Berlin: Mouton de Gruyter.

Diewald, G. and E. Smirnova (eds.) 2010. *Linguistic realization of evidentiality in European languages.* Berlin: Mouton de Gruyter.

Evans, N. 2006. View with a view: towards a typology of multiple perspective. *Berkeley Linguistics Society (BLS)*, 32, 93–120.

Evans, N., H. Bergqvist and L. San Roque. 2018. The grammar of engagement I: framework and initial exemplification. *Language and Cognition*.

Faller, M. T. 2002. *Semantics and Pragmatics of Evidentials in Cuzco Quechua*. Ph.D. dissertation, Stanford University.

Fitneva, S. A. 2018. The acquisition of evidentiality. In Alexadra Y. Aikhenvald (ed.), *The Oxford Handbook of evidentiality*, 185-201. Oxford: Oxford University Press.

Floyd, R. 1999. *The Structure of Evidential Categories in Wanka Quechua*. Dallas: Summer Institute of Linguistics and University of Texas at Arlington.

Floyd, S., E. Norcliffe and L. San Roque (eds.) 2018. *Egophoricity*. Amsterdam: Benjamins.

Grunow-Hårsta, K. 2007. Evidentiality and mirativity in Magar. *Linguistics of the Tibeto-Burman Area* 30(2), 151–194.

De Haan, F. 2001. The place of inference within the evidential system. *International Journal of American Linguistics* 67: 193-219.

Hengeveld, K & H. Olbertz. 2012. Didn't you know? Mirativity does exist! *Linguistic Typology* 16(3): 487-503.

Hill, N. 2012. "Mirativity" does not exist. hdug in "Lhasa" Tibetan and other suspects. *Linguistic Typology* 16(3): 389-433.

Jalava, L. 2017. Grammaticalization of modality and evidentiality in Tundra Nenets. In K. Hengeveld, H. Narrog and H. Olbertz (eds.), *The grammaticalization of tense, aspect, modality and evidentiality. A functional perspective*, 133-162. Berlin: Mouton de Gruyter.

Kiefer, F. 1998. Modality. *Handboook of Pragmatics* Volume 4. Amsterdam: Benjamins.

Kittilä, S. 2019. General knowledge as an evidential category. *Linguistics* 57(6): 1271-1304.

Landaburu, J. 2007. La modalisation du savoir en langue andoke (Amazonie colombienne). In Z. Guentchéva & J. Landaburu (eds.), L'énonciation médiatisée II: Le traitement épistémologique de l'information; Illustrations amérindiennes et caucasiennes, 23–47. Leuven: Peeters.

LaPolla, R. 2003. *A grammar of Qiang*. Berlin: Mouton de Gruyter.

Lawrence, M. 1987. Viewpoint in Oksapmin. *Language and Linguistics in Melanesia* 16: 54–70.

Matsui, T. & T. Yamamoto. 2013. Developing sensitivity to the sources of information: Early use of the Japanese quotative particles *tte* and *to* in mother-child conversation. *Journal of Pragmatics, Pragmatic development in L1, L2, L3: Its biological and cultural foundations*, Part A, 5-25.

Palmer, F. R. 1986. *Mood and modality*. Cambridge: Cambridge University Press.

Pillow, B. H. 1989. Early understanding of perception as a source of knowledge. *Journal of Experimental Child Psychology* 47, 116–129.

Plungian, V. 2010. Types of verbal evidentiality marking: an overview. In G. Diewald & E. Smirnova (eds.), *The Linguistic realization of evidentiality in European languages*, 15-58. Berlin: Mouton de Gruyter.

Romero-Ménde, R. 2008. *A Reference grammar of Ayutla Mixe (Tukyo'm Ayuujk)*. PhD Dissertation, State University of New York, Buffalo.

Roulet, E. 1996. Polyphony. *Handbook of Pragmatics* Volume 2. Amsterdam: Benjamins.

Sandman, E. 2016. A grammar of Wutun. University of Helsinki, doctoral dissertation.

Sodian, B. and H. Wimmer. 1987. Children's understanding of inference as a source of knowledge. *Child Development* 58, 424–433.

Valenzuela, P. 2003. Evidentiality in Shipibo-Konibo, with a comparative overview of the category in Panoan. In Aikhenvald and Dixon (eds): 33–62.

Verhagen, A. (2005). *Constructions of intersubjectivity: discourse, syntax and cognition*. Oxford: Oxford University Press.

de Villiers, J., J. Garfield, G-G.Harper, T. Roeper and M. Speas. 2009. Evidentials in Tibetan: Acquisition, Semantics, and Cognitive Development. *New Directions for Child and Adolescent Development* 125, 29–47.

Watters, D, E. 2002. *A grammar of Kham*. Cambridge: Cambridge University Press.

Willet, T. 1988. A cross-linguistic survey of the grammaticalization of evidentiality. *Studies in Language* 12, 57–91.